



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

**JUN 16 2005**

**OFFICE OF  
AIR AND RADIATION**

**Dr. Inés Triay, Acting Manager  
Carlsbad Field Office  
U.S. Department of Energy  
P.O. Box 3090  
Carlsbad, NM 88221-3090**

**Dear Dr. Triay:**

This letter provides the results of the U.S. Environmental Protection Agency's (EPA) inspection of the acceptable knowledge (AK) documentation for the solid waste from the Plutonium Finishing Plant (PFP) at Hanford, Washington (EPA-Hanford-12.04-8). EPA conducted a 'desk-top' review of the adequacy and completeness of the AK documentation for the PFP solid waste as part of the system of controls supporting the waste characterization activities implemented at Hanford. This inspection was necessary to ensure compliance with our regulations (40 CFR 194.8(b)(3), 40 CFR 194.8(c) and 40 CFR 194.24). Our report discussing our review and conclusions is enclosed and has been placed in the EPA Air Docket No. A-89-49, Item II-A4-54.

**Background**

In June 2003, EPA inspected Hanford's WC processes used when characterizing PFP solid waste. During this inspection, however, EPA did not examine the acceptable knowledge (AK) process. EPA inspected the other components of the system of controls (radioassay, radiography, visual examination, and WIPP Waste Information System) implemented by Hanford to demonstrate to EPA the capabilities of their TRU waste characterization program to characterize the PFP solid waste. In an August 7, 2003, letter to the Carlsbad Field Office (CBFO) transmitting the Hanford inspection report, EPA specifically stated that "EPA has not approved acceptable knowledge for TRU solids, specifically ash and mixed oxides, characterized at the PFP facility. As a result, DOE may not dispose at the WIPP any ash and mixed oxides from the PFP facility." This restriction was based on the fact that EPA had not fully evaluated, nor approved, AK documentation as part of the waste characterization for these solid wastes.

In September 2004, EPA discovered that between July 25 and September 4, 2004, DOE had incorrectly shipped and emplaced in the WIPP approximately 600 drums of PFP solid waste (ash) from Hanford. In a November 12, 2004 letter to DOE, EPA concluded that the mixed oxides were adequately characterized and emplaced as part of the debris waste stream.

WIPP conflicted with EPA's site approval and violated EPA regulations at 40 CFR 194.8 and 24. DOE voluntarily suspended further PFP solid waste shipments from Hanford to WIPP and agreed to take steps to identify the cause of the error and prevent recurrence.

In November 2004, EPA issued a Federal Register notice announcing the intention to evaluate AK documentation related to PFP solids and the availability of the Hanford's TRU waste characterization program documents. (69 FR 69569) EPA accepted comment on these documents until January 30, 2005. We received one (1) set of public comments. Section 8 of the enclosed inspection report contains our response to public comments.

EPA identified no findings and four concerns, none of which require response at this time. EPA will follow-up on these concerns during the Hanford inspection scheduled for the week of June 20, 2005.

### Conclusion or Approval

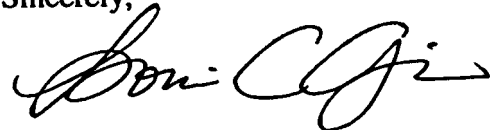
The PFP's retrievably-stored contact-handled solid waste at Hanford characterized using approved systems and processes can be disposed of at WIPP. The Table below provides a summary of EPA's waste characterization approvals for Hanford waste categories.

**Summary of EPA Approvals**

Waste Characterization Processes	WRAP Debris Waste	PFP Debris Waste	PFP Solid Waste
Acceptable Knowledge	Approved - June 2000	Approved - August 2002	Approved - June 2005
Nondestructive Assay	- Canberra GEA-A: Approved - June 2000  - Canberra GEA-B: Approved - August 2002  - IPAN A & B: Approved - August 2003	- SGSAS in Room 172: Approved - August 2002  - SGSAS w/ANTECH AR-1 calorimeter: Approved - August 2003  - SGSAS w/ANTECH AR-5, AR-8, P-13, P-14, P-15, Q-1 calorimeters: Approved - October 2003	- SGSAS w/ANTECH AR-1 calorimeter: Approved - August 2003  - SGSAS w/ANTECH AR-5, AR-8, P-13, P-14, P-15, Q-1 calorimeters: Approved - October 2003
Visual Examination & Real-time Radiography	Approved - June 2000	Approved - April 2002	Approved - August 2003
WIPP Waste Information System	Approved - June 2000	Approved - June 2000	Approved - June 2000
Load Management	Not approved	Not approved	Not approved

If you have any questions, please contact Rajani Joglekar at (202) 343-9462.

Sincerely,

A handwritten signature in black ink, appearing to read "Bonnie C. Gitlin". The signature is fluid and cursive, with the first name "Bonnie" and last name "Gitlin" clearly distinguishable.

Bonnie C. Gitlin, Acting Director  
Radiation Protection Division

**Enclosure**

**cc:** Kerry Watson, CBFO  
Ava Holland, CBFO  
Frank Marcinowski, DOE/EM (w/o enclosure)  
Lynne Smith, DOE/EM (w/o enclosure)